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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,794	01/03/2002	Duane V. Byerly	790063.00007	8537
26710	7590	04/13/2004	EXAMINER	
QUARLES & BRADY LLP 411 E. WISCONSIN AVENUE SUITE 2040 MILWAUKEE, WI 53202-4497			BINDA, GREGORY JOHN	
			ART UNIT	PAPER NUMBER
			3679	

DATE MAILED: 04/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/033,794

Applicant(s)

BYERLY ET AL.

Examiner

Greg Binda

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 9 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/1/03 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

*Continued Examination Under 37 CFR 1.114*

2. A request for continued examination filed December 29, 2003 under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on Jan 21 1, 2004 has been entered.

*Election/Restrictions*

3. Claims 9 & 10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election of a flexible shaft, Group I, was made without traverse in Paper No. 5.

*Drawings*

4. The replacement drawings received on Dec 1, 2003 are objected to because:
  - a. In Fig. 1, a link identified by reference character 13D (see just above and to the right of "FIG. 1") should be identified by any of reference characters 13A, 13C and 13F. In the argument filed Dec 1, 2003 applicant appears to argue that this reference character

13D is actually a second reference character 13A, but that is not how it appears in the drawing.

b. In Fig. 2 the lead lines for reference characters 13E & 13F lead to the same link.

5. The drawings filed Aug 1, 2003 are objected to because in Fig. 4 bolts 16A & 16C are shown as being fully assembled (i.e. with nuts and washer attached) to the disclosed invention, but those bolts are not shown as being disposed through holes in flange 19 as described on page 4, lines 11+ and recited in claim 2.

6. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

*Claim Rejections - 35 USC § 112*

7. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1, lines 4-7, recite "fastener means comprising . . . a plurality of link means" which indicates the link means are included within the fastener means. However, in line 15, the fastener means and link means are recited as separate and distinct elements.

*Claim Rejections - 35 USC § 102*

9. Claims 1, 2, 7 & 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Andra et al, WO 99/15803 (Andra).

a. Claim 1. Figs. 1 & 2 show a flexible coupling comprising: an annular body 10 of moldable material 20; fastener means including a number of parallel bores (indicated by numeral 16 in Fig. 2) circumferentially distributed about the body 10, each bore 16 opening to opposite sides of the body 10; a plurality of link means 12; and a washer means 18, 18' on opposite sides of each link means 12 defining end orifices. Figs. 2-7 show that each washer 18, 18' has a peripheral formation 28, 28' such that when the body 10 is molded to incorporate the fastener means and link means so that each washer is locked by the molded material 20 (see also the first full paragraph of page 2 of the English language translation).

b. Claim 2. Andra discloses that the flexible coupling is used in a cardanic connection for shafts (see U. S. Equivalent US 6,315,670, col. 1, lines 19 & 20). Such a connection includes all the limitations of claim 2. (See the cardanic connection in US 6,176,784)

c. Claim 7. Fig. 2 shows that the links 12 are made from composite material and are in stacked relationship.

d. Claim 8. Fig. 2 shows the body 10 has parallel faces and its moldable material 20 surrounds the washers 18, 18'. Fig. 2 also shows the washers 18, 18' protruding from the faces of the body 10 to the same extent that applicant's Fig. 2 shows washers 14 protruding from the faces of body 1.

*Claim Rejections - 35 USC § 103*

11. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andra.
  - a. Claims 4 & 5. Andra discloses that the annular body 10 is made from a moldable material 20 but does not expressly disclose that the moldable material is a urethane polymer. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the annular body 10 from a urethane polymer since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.
  - b. Claim 6. Andra discloses washer means 18, 18' but does not expressly disclose the washer means being made from metal. However, it would have been obvious to make the washer means from metal for the same reason noted in subparagraph 'a' above.
8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Andra in view of Bingle et al, US 5,986,364 (Bingle). In Fig. 7. Andra shows washer means 18' comprising a peripheral formation formed as an aperture 28', but Andra does not show the peripheral formation formed as a peripheral groove. Bingle teaches that a peripheral formation formed as a peripheral groove 70a, 70a' 108, 018' (see Figs. 9, 10, 16 & 17) is an art recognized equivalent of a peripheral formation formed as an aperture 70b, 114 (see Figs. 11 & 15). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the washer means of Andra by making the peripheral formation as a groove instead of an aperture since a groove is an art recognized equivalent of an aperture as taught by Bingle.

*Response to Arguments*

9. Applicant's arguments filed Dec 1, 2003 have been fully considered but they are not persuasive.

- a. Applicant argues that Andra's collars 18 & 18' are not washers because they are part of bushings 14. However, there are no limitations in the claims which would preclude the washers recited in the claims from being attached to bushings. As such the collars 18 & 18' in Andra read on the washers in the instant claims.
- b. Applicant argues that the collars 18 & 18' of Andra fail to define end orifices at the ends of a bore.. However, Fig. 3 clearly shows the collars 18 & 18' define end orifices at the ends of a bore.

*Conclusion*

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Binda whose telephone number is (703) 305-2869. The examiner can normally be reached on M-F 9:30 am to 7:00 pm with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H. Browne can be reached on (703) 308-1159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3679

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Greg Binda  
Primary Examiner  
Art Unit 3679